

Lessons From The U.S.:
Muni bond market inefficiencies
and what to do about them

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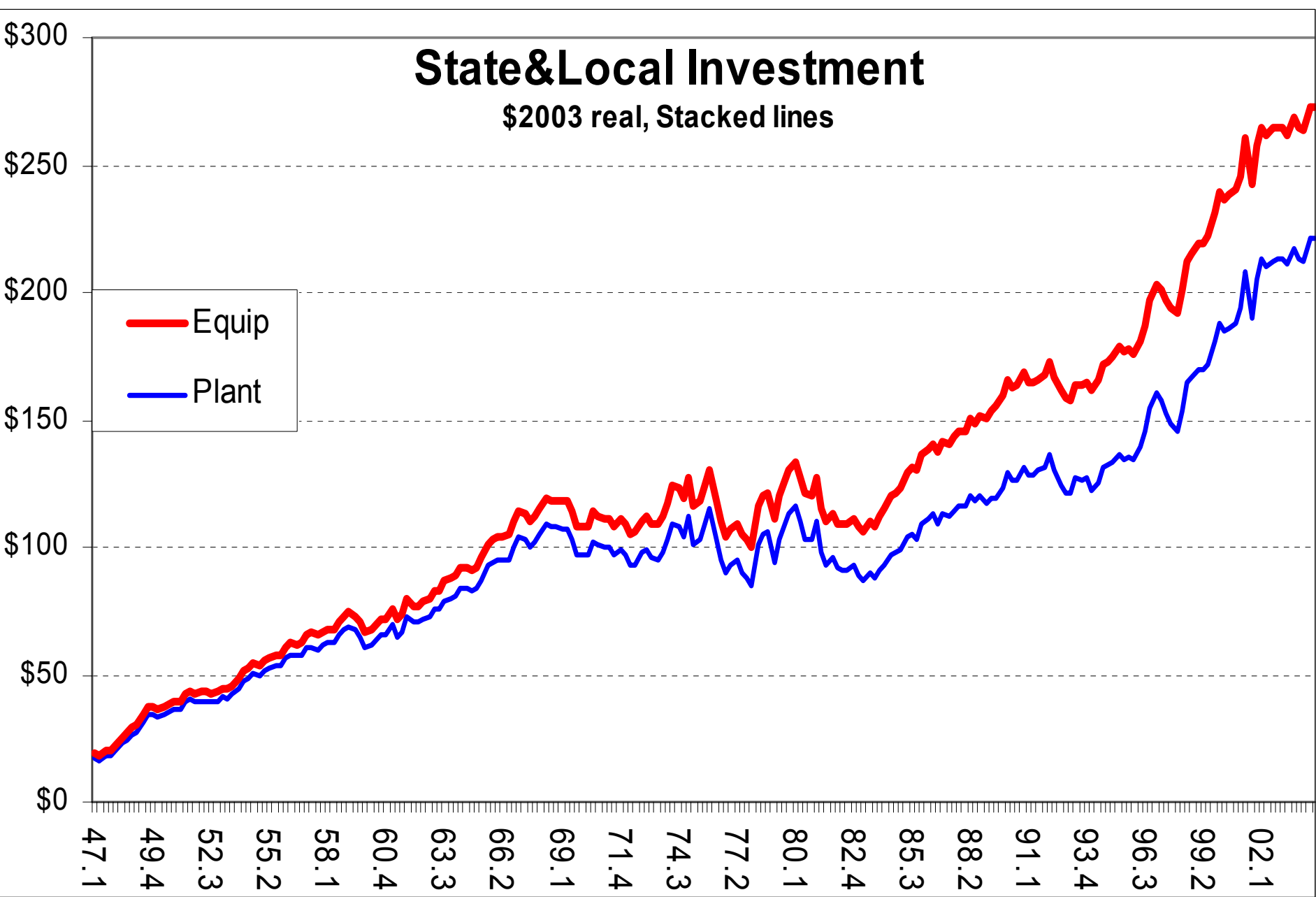
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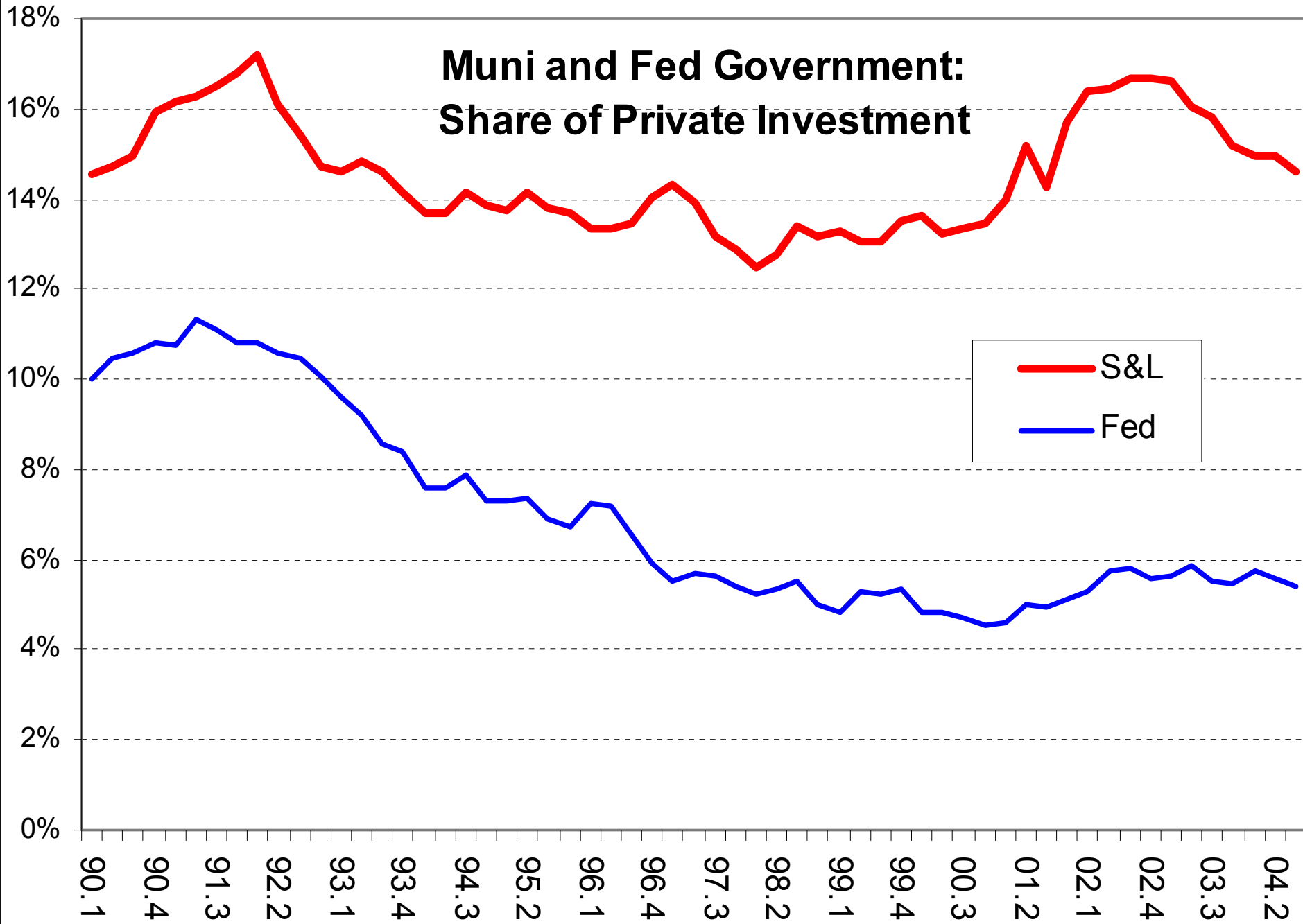
State&Local Investment

\$2003 real, Stacked lines

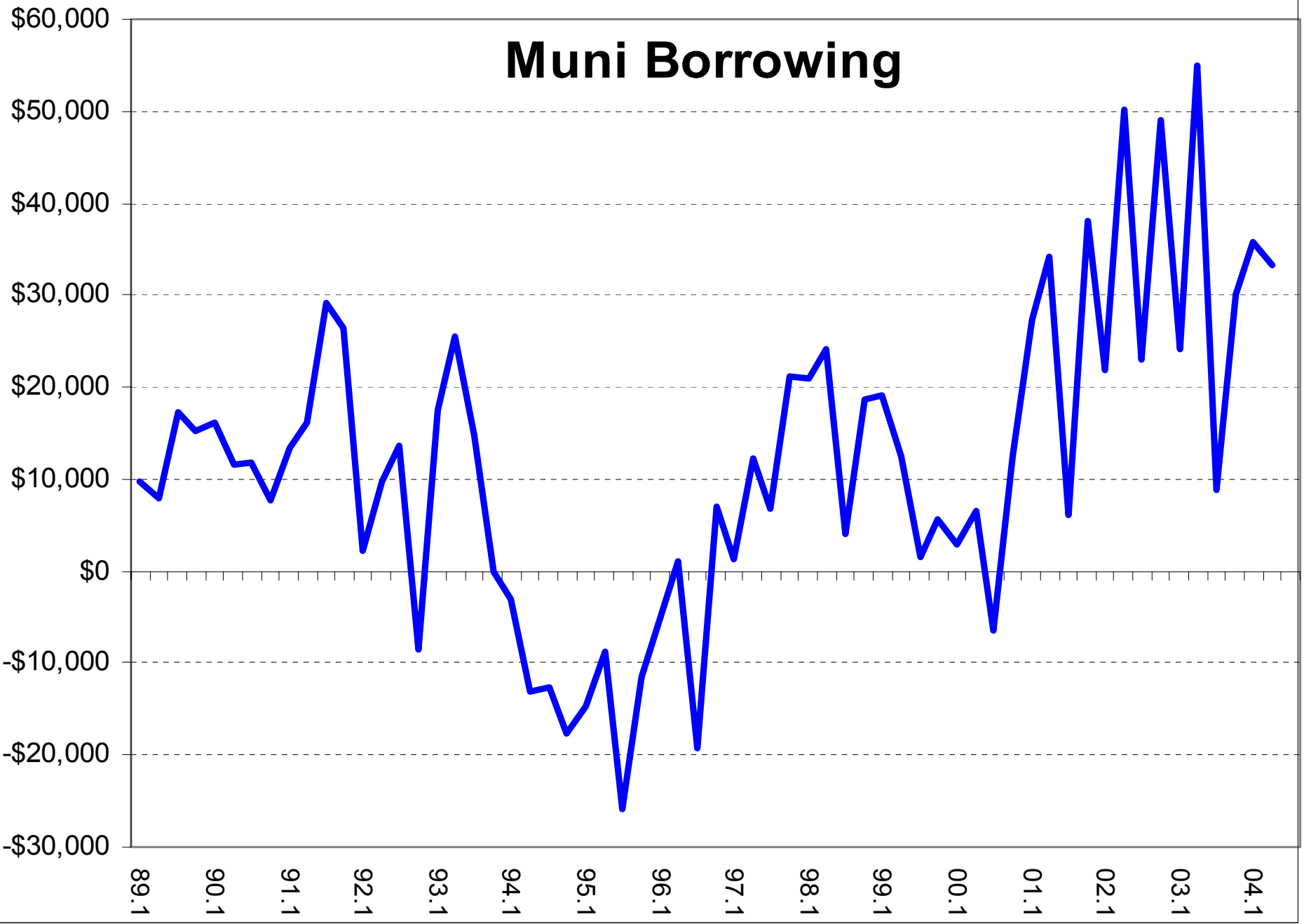
Equip
Plant



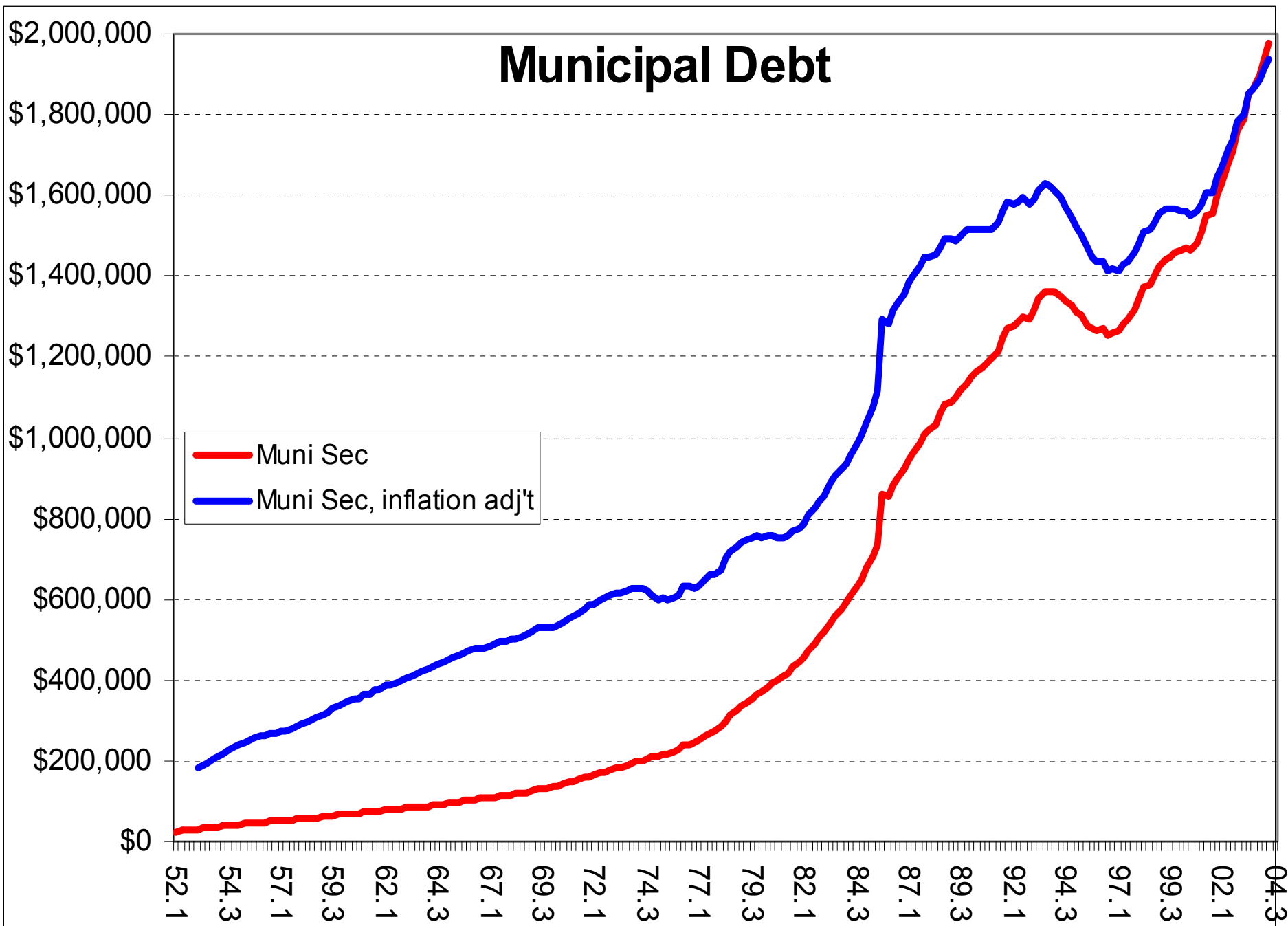
Muni and Fed Government: Share of Private Investment



Muni Borrowing

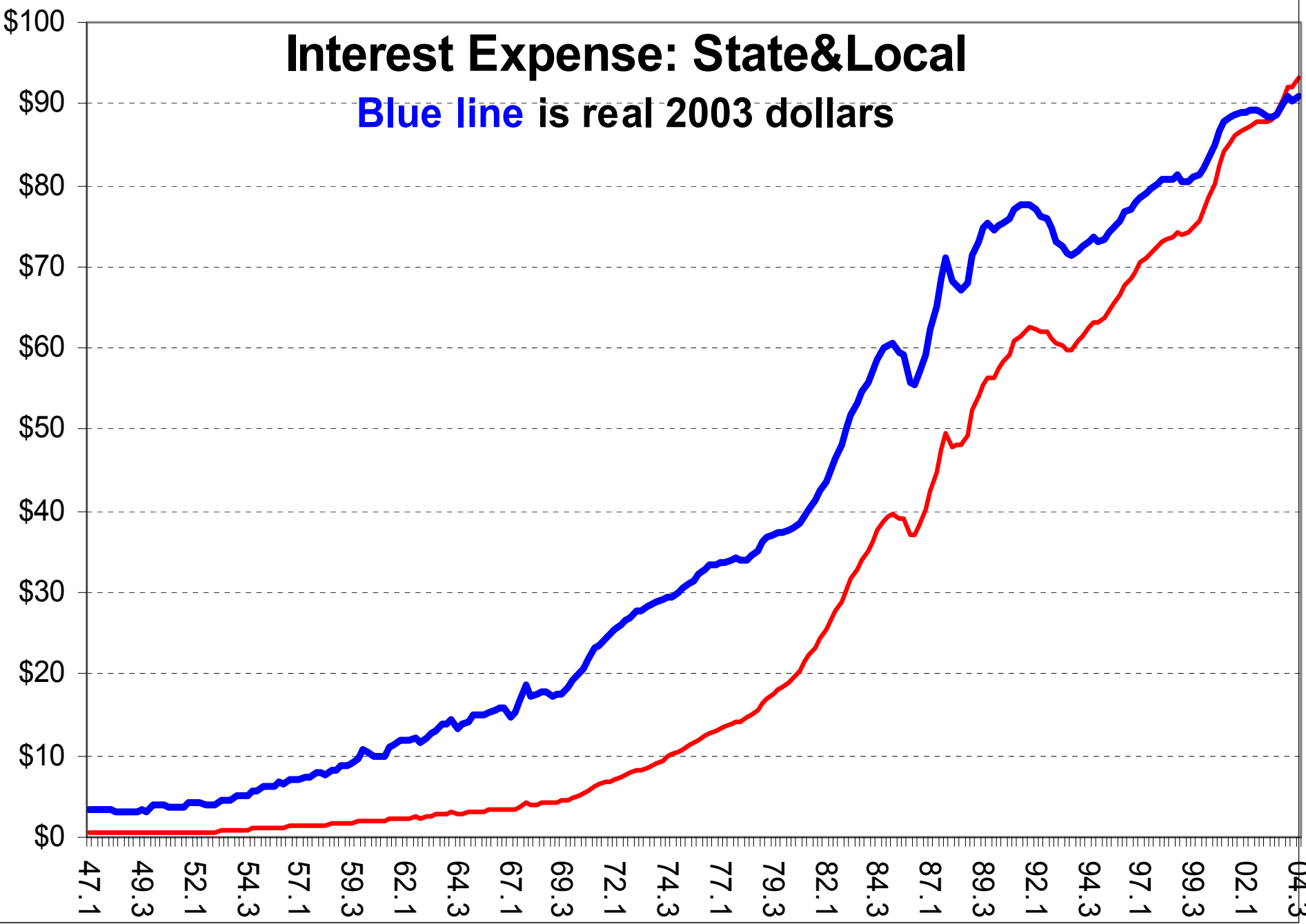


Municipal Debt

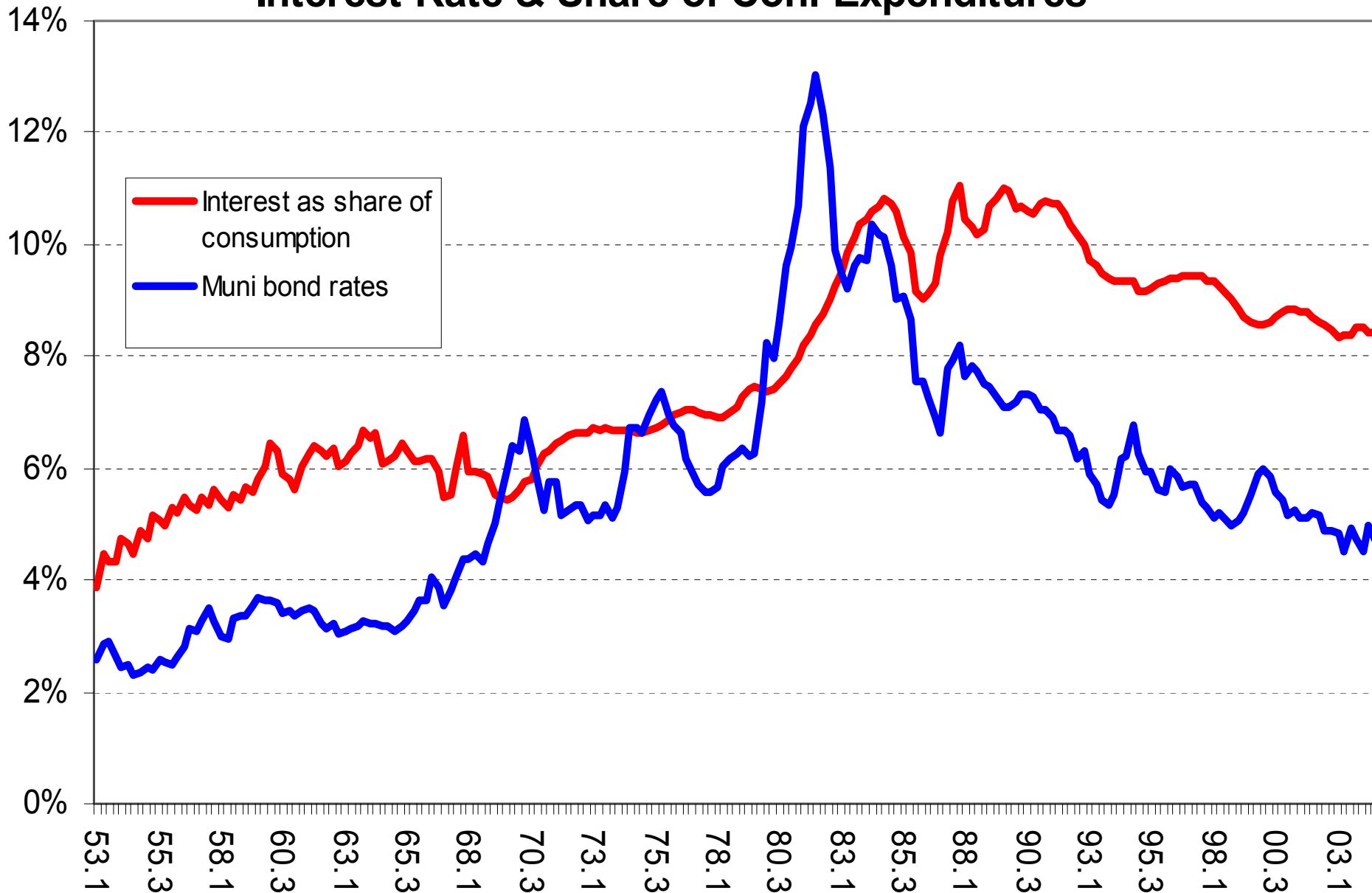


Interest Expense: State&Local

Blue line is real 2003 dollars



Interest Rate & Share of Con. Expenditures



Two problems that damages the benefits of the market

1. The underwriting and issuance of muni bonds is not adequately scrutinized by governments and investors. Issuing governments often leave “a lot on the table” as underwriters capture huge, risk-free profits.

Example: New Jersey city issues ‘tobacco bonds’ prices to sell at slight discount of 97% of principal but within days are trading over 104% -- that is 7% of principal that government lost to the underwriter.

2. The secondary market trading in muni bonds occurs with inadequate transparency and so investors often pay too much for bonds

Example: Investors cannot observe dealer market and thus cannot know market prices. As a result, an investor submits buy order and broker, broker contacts a dealer who buys it from another dealer. The bond is marked up by the first dealer and then the second and before it gets to investor. That is why SEC estimates that muni transaction costs 200 basis in comparison to OTC equity market transaction that costs 40 basis points. Higher transactions costs raise the cost of funding through muni bonds and this cost is passed on to local governments.

UNDERWRITING COSTS

ASSUMPTIONS

interest rate, coupon	5%
maturity, years	10
issuance	\$10,000,000

	Price	Yield	Lost opportunity		Losses per \$10million
			Interest Cost		
			Annual	Sum over 10yrs	
		5%		\$10,000,000	
Par	\$100.00	5.000%	0.00%	\$0.00	\$0.00
1% Premium	\$101.00	4.871%	0.13%	\$128,696.43	-\$100,000.00
2% Premium	\$102.00	4.744%	0.26%	\$255,801.45	-\$200,000.00
3% Premium	\$103.00	4.619%	0.38%	\$381,351.43	-\$300,000.00

TRADING COSTS

R/T in bond market	200	basis points	
R/T in equity market	60	basis points	
Relative cost	140	basis points	* relative cost used as measure of market inefficiency

	Price	Yield	Interest Cost
Par, efficient market	\$100.00	5.000%	
Effective cost	\$101.40	4.820%	0.180%

TOTAL COSTS

Underwriting plus		Underwriting	Trading	Total	Lost Principal	
Trading costs	1% Premium	0.13%	0.18%	0.31%	\$238,157	2.4%
	2% Premium	0.26%	0.18%	0.44%	\$336,304	3.4%
	3% Premium	0.38%	0.18%	0.56%	\$433,250	4.3%

Regulatory Remedies

Prudential regulatory framework for muni bond issuance and secondary market trading

- reporting requirements for prices in order to have transparent markets
- require that investors' trade confirmation statements show what is paid for the bond by dealer and broker.
- Require dealers to promptly report transaction prices and post them immediately so that investors can observe market prices in order to see whether they received fair price.

Encourage the use of bond banks by municipal governments in order to further improve efficiency of markets

- improves credit rating
- adds to market liquidity
- allows for professional, sophisticated management of issuances
- allows for larger and regularly scheduled issuances

THE U.S. EXPERIENCE: MUNICIPAL

MAINE BOND BANK (MBB)

Created in 1972 to provide public purpose financing to cities, counties, school systems, water districts, sewer districts and other governmental entities. Public purposes include school construction or renovation, road improvements, upgrades to sewerage treatment plants or water systems, landfill closures, purchase of public safety vehicles, and other municipal construction or renovation projects and capital acquisitions.

The Bond Bank enhances municipalities' access to national and international capital markets. The MBB sells tax-exempt bonds and taxable bonds under its name and uses the funds to lend directly to localities.

Municipalities apply for credit to the MBB which evaluates their proposals for legal and economic validity. Borrowers must also get approval from their own governing entity. The MBB consolidates credit applications from eligible municipals and then sells bonds on their behalf under the MBB name. The larger issuance creates greater investor interest because of greater liquidity and lower underwriting costs (due to volume). It also has a high credit rating (AAA by Standard & Poors and Fitch, and Aa1 by Moody's) which helps lower borrowing interest rates. The MBB can issue a bond representing a single municipality if the borrowing needs are great enough.

THE U.S. EXPERIENCE: MUNICIPAL

Goal/ Objective

Provide public purpose financing to cities, counties, school systems, water districts, sewer districts and other governmental entities.

Funding method

Issues tax-exempt and taxable bonds in the capital market.

It does not receive any direct appropriations from the State, although it does receive grants from the State for administering the Clean Water Act and Safe Drinking Water Act.

Ownership/ Governance method

The MBB is an independent agency of the State of Maine. It is administered by a board of commissioners that include the Treasurer of State, Superintendent of Banking and three commissioners appointed by the Governor. It is set up as a corporation that is wholly owned by the State.

Assets

Capital in the form of retained earnings.

THE U.S. EXPERIENCE: MUNICIPAL

PROBLEM

Municipal bond market is inefficient in several ways. The small, heterogeneous issues reduce liquidity. There are high costs for underwriting as well as for secondary market trading in OTC markets. (See Dodd 2005). The tax-exempt program creates further inefficiencies by making bonds attractive to only high-net wealth individuals with US tax liabilities.

SOLUTION

- Create greater homogeneity (and hence liquidity) and enhance credit rating in order to lower borrowing costs.

INNOVATION

- Consolidate municipal government public purpose borrowing needs into large, higher credit rated issuances.
- Fewer, larger issuances offer lower underwriting costs.
- Larger, homogeneous issues generate greater liquidity.

FAILURE

- Too successful, face major jealousy from major US banks
- Accounting problems, failure to properly comply with new derivatives accounting rules

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